Determining outcomes and improving effectiveness: an outcome study of the East Bay Agency for Children's Therapeutic Nursery School

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ABSTRACT

This study evaluated the effectiveness of the East Bay Agency for Children’s Therapeutic Nursery School (TNS) in reducing problem behaviors for troubled preschoolers. Seven preschoolers between the ages of 2 ½ and 5 years old were assessed at the start of the study (or at admission date if after) and at 9 months (or at discharge if before 9 months) in a pre-post design. The Achenbach System of Empirically Based Assessment (ASEBA; commonly known as the Child Behavior Checklist or CBCL) was used as the measure of problem behaviors. Three ASEBAs were collected for each participant at pre and post measures – one from the parent or guardian, one from the teacher, and one from the therapist. The TNS intervention included typical preschool educational activities, individual and group therapy, social and emotional skills training, behavioral modification, and some family work. Quantitative and qualitative analysis of the data seemed to indicate no significant differences between pre and post scores for most students, although the study had many possible limitations. The findings suggest a need for greater controls to adequately assess the outcome of TNS.
DETERMINING OUTCOMES AND IMPROVING EFFECTIVENESS:
AN OUTCOME STUDY OF THE EAST BAY AGENCY FOR CHILDREN’S
THERAPEUTIC NURSERY SCHOOL

A project based upon an investigation at the East Bay Agency for Children’s Therapeutic Nursery School, Oakland, California, submitted in partial fulfillment of the requirements for the degree of Master of Social Work.

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CHAPTER I
INTRODUCTION

Too often social service agencies are operating “a dollar short and a day late.” Shortages of time and money are common and widely recognized as factors that limit the work that can be done for clients who so badly need it. Given this situation, it is imperative that such programs with limited resources be designed to be effective and of good quality. This is especially imperative when dealing with mental health interventions in early childhood. Unlike other periods of development, childhood is a time during which significant, long lasting change is more easily attained (Kauffman, 1999). Despite a worker’s or agency’s best intentions, it is unlikely that such efficiency will occur without planning and regular assessment. The purpose of this study is to determine the intervention outcome of services provided by the East Bay Agency for Children’s Therapeutic Nursery School program in Oakland, California (hereetofore noted as TNS).

The emergence of the “therapeutic nursery school” in the early part of the 20th century reflected the explicit need to provide mental health services to very young children who were exhibiting difficulties. Some studies have found that therapeutic nursery school programs are generally effective in delivering interventions that improve the social, emotional, and behavioral issues of troubled preschoolers (Anderson, Long, Leathers, Denny, & Hilliard, 1981; Oates, Gray, Schweitzer, Kempe, & Harmon, 1995; Rickel, Smith, & Sharp, 1979; Ware, Novotny, & Coyne, 2001). Other studies have found that similar programs serving similar populations and offering seemingly similar
interventions were ineffective in creating change in participants (Woollacott, Graham, & Stevenson, 1978; Reams & Friedrich, 1994; Tse, 2006). Due to these conflicting findings, it is not possible to draw conclusions or make generalizations about whether or not therapeutic nursery school programs “work.” Therapeutic nursery schools operate under varied theoretical orientations and offer similar but varied interventions in specific contexts. Previous research is useful in helping to guide and place this study but cannot provide answers about TNS’s particular outcomes. Thus, a study of the TNS program itself was conducted. The current study was designed to reveal useful information about possible ways to serve troubled preschoolers and their families.

In order to determine the outcome of the TNS intervention, pre and post-test problem behavior scores of the Achenbach System of Empirically Based Assessment (ASEBA; formerly known as the Child Behavior Checklist or CBCL) were compared. The ASEBA was chosen for its proven reliability and validity, and the relevance of measured constructs to TNS. ASEBAs were completed by the parent or caregiver, the teacher, and the therapist for each child participating in the study. It is hoped that information from this study will be useful for future program planning at TNS. Additionally, the findings of this study may provide a model for self-examination that other agencies may find useful.
CHAPTER II

LITERATURE REVIEW

The purpose of this study is to determine the effectiveness of the East Bay Agency for Children’s Therapeutic Nursery School (TNS) in relation to effecting positive change for its students. Essentially, the TNS program aims to prepare its students to succeed in a school setting. This includes improving a child’s impulse control and ability to focus, reducing acting out behaviors, increasing social skills, addressing trauma if present, improving awareness and articulation of feelings, and improving compliance to structure and rules. This study asked to what extent the program is meeting these goals, and in what ways the program might be enhanced? This study used quantitative and qualitative methods to seek answers to these questions.

This literature review will explore the following related topics: the prevalence and impact of the mental health needs of young children; a general discussion of the history and nature of therapeutic nursery schools; and a specific description of the EBAC Therapeutic Nursery School Program. This review will also provide descriptions and definitions of various therapeutic nursery school programs with similarities to the TNS program. Finally, outcomes of studies that examine school based treatment programs for preschool aged children will provide a context for the current research. In addition, “best practices” for programs aimed at serving preschool children with social, emotional, or behavioral problems will be explored. “Best practices” refers to techniques or modalities that through experience, research, and proven reliability lead to a desired result.
Epidemiological studies show moderate to serious mental health problems in 7-25% of preschool aged children (Apter, 1998; Conroy, Dunlap, Clarke, & Alter, 2005; Luby & Morgan, 1997; Webster-Stratton, 2001). In addition, 22% of girls and 39% of boys in Head Start scored in the clinical range for both externalizing and internalizing problem behaviors (Kaiser, Cai, Hancock, & Foster, 2002). Applying the figures provided above to preschool population counts reveals that there are between 1.4 and 5.2 million children under five years old that are experiencing mental health issues that are already impeding their development and daily activities (Lugaila & Overturf, 2004). Some researchers argue that these children could benefit from programs designed to support and develop social skills, emotional health, and a healthy sense of self (Educational Resource Information Center, 1986; Harden & Lythcott, 2005; Knitzer, 1982). It could be argued that society at large has an obligation to intervene at this early age. Clinical perceptions suggest that young children exhibiting signs of socially unacceptable behavior tend to maintain these behaviors into adolescence and adulthood (Loeber, 1982; Spivack, Marcus & Swift, 1986). Most empirical research counters the idea that children just “grow out of” problem behaviors. The steadfast and enduring nature of mental health issues recognized in childhood has been noted in multiple studies (Campbell & Ewing, 1990; Egeland, Kalkoske, Gottesman, & Erickson, 1990; McGee, Partridge, Williams & Silva, 1991). These researchers have found that unaddressed challenging behaviors in children increase in rate and severity over time and that early behavior problems are often linked with substance abuse, unemployment, criminal behavior, and a formal psychiatric diagnosis later in life (Reid & Eddy, 2002). It is
important to note however that a few very recent studies have questioned this tie between problem behaviors early in life and problem behaviors or failure later in life (Duncan et al., 2007; Shaw et al., 2007). As this recent research conflicts long standing ideas and much previous research, the findings are considered cautiously and need more development before full implications can be determined.

Children’s behavioral and emotional problems can pose tremendous challenges to families, schools, and society at large. The estimated savings of diverting one child from a life of crime are as high as $1.7 to $2.3 million (Cohen, 1998). Given the disturbing potential effects of children’s mental health issues, early intervention is a sensible, some would say crucial, alternative to intervening after the behavior is entrenched (Dodge, 1993; Kaiser & Hester, 1997; Kauffman, 1999; Kazdin, 1993; Webster-Stratton, 2001). Early detection and intervention is the most powerful course of action in decreasing life long problems associated with children at risk for emotional or behavioral disorders (Hester, Baltodano, Gable, Tonelson, & Hendrickson, 2003).

There is sufficient evidence to suggest a real need for programs that aim to address the mental health needs of young children. Therapeutic nursery schools are one important mode of intervention with this population. With children this young, it is very rare that they are removed from their homes and placed in residential treatment programs. For children that need more intensive treatment than the traditional offering of fifty minutes once a week, therapeutic nursery schools may be a valuable resource.

**Therapeutic Nursery Schools**

A *nursery school* is a school for children between the ages of three and five that is staffed by qualified teachers and professions who encourage and supervise educational
play rather than simply provide child care (Nursery School, Encarta.com, 2007). Another common name for nursery school is preschool. From their very inception, nursery schools were designed to improve the health and welfare of children (Green, 1972). The first documented nursery school was established in 1918 in England and was a reaction to high rates of toddler deaths attributed to “the deplorable urban conditions in which they were raised” (Green, 1972, p. 6). The children in these “deplorable urban conditions” were from poor families with little resources. Thus, the English government subsidized community nursery schools for children who were older than infants but too young to attend kindergarten. These schools were specifically designed to address social and economic conditions that were creating significant mental and physical illness in children (Green, 1972). America’s Head Start program, started in 1964 by the US government, can be seen as a direct extension of these early schools in England as it is a subsidized preschool program provided to disadvantaged families in order to improve later school success. In addition to Head Start, there are now many nursery school programs that serve a wide swath of the American population - from free programs to those that have two-year waiting lists and can cost as much as a college education.

A therapeutic nursery school is a treatment setting for preschool-aged children who have a mixture of mild to severe developmental delays, language disorders, and/or behavioral and emotional problems, but are not mentally retarded. Such programs usually provide intensive treatment in a group setting for several hours weekly and usually include educational and recreational components. This format is a “day treatment” format in which the child attends each day and then returns home. There is also “residential treatment” in which a child would reside at the treatment facility but most therapeutic
nursery schools are day treatment. Therapeutic nursery schools typically offer a combination of treatments and remedial efforts that are designed to fit the needs of the individual child (Cohen, Bradley, & Kolers, 1987; Tse, 2006; Ware, Novotny, & Coyne, 2001). Most therapeutic nursery schools are multimodal and aim to address multiple child difficulties while also addressing larger family issues. Other common names for such programs are therapeutic preschool, therapeutic day treatment, and preschool day treatment.

Therapeutic nursery schools began in the early 20\(^{th}\) century and became a mainstay of psychiatric intervention for preschoolers by mid-century (Freud, 1988; Furman & Katan, 1969; Glasscote & Fishman, 1974; Rexford, 1949; Tse, 2006; Ware, Novotny, & Coyne, 2001). Despite the general acceptance of such programs and the great variety in focus and approach, this mode of intervention has seldom appeared in the literature (Tse, 2006). The effectiveness of therapeutic day treatment for older children and adolescents has been studied but cannot be assumed applicable to preschool children due to the great contextual and developmental differences between these age groups.

**The Therapeutic Nursery School of the East Bay Agency for Children**

The East Bay Agency for Children’s (EBAC) Therapeutic Nursery School (TNS) was established in 1992 in large part as a response to the crack epidemic of the late 80s and early 90s. Crack cocaine was seen as a significant problem in Oakland, California at the time, and many children were drug-exposed in-utero and raised in “crack houses.” In 1984 some 5% of the newborns at Highland General Hospital, which serves Oakland's poorest neighborhoods, were born drug-exposed. By 1998, about 20% of all babies born at Highland were born drug-exposed (Langone, 1998). At the time, there was a lot of
negative forecasting about the fate of these “crack babies,” their limitations, and the kind of care they would require (Greider, 1995; Vidaeff & Mastrobattista, 2003). It was thought that children exposed to crack in utero would have long term or permanent delays in cognitive, biological, and speech/language development (Chasnoff, Burns, Schnoll, & Burns, 1985). It was predicted that these cocaine-exposed children were destined to be a “biological underclass that would cripple schools, fill jails, and drain social programs” (Beattie, 2005; Greider, 1995). Despite the conviction of these early reports, follow-up studies were done that suggested that cocaine-exposed babies: (1) could not be easily distinguished from “normal” babies in a nursery (Greider, 1995); (2) were “very similar to colicky babies and hard to tell apart” (Beattie, 2005); and (3) showed no lasting cognitive or language/development problems when given appropriate stimulation (Brown, Bakeman, Coles, Platzman & Lynch, 2004). In retrospect, it seems that much of the early “crack baby” hysteria failed to tease apart the effects of prenatal cocaine exposure from the effects of an array of other social and biological burdens that are often present with maternal cocaine use (i.e., neglect, secondary exposure, overall instability, poverty, lack of education, and little or no medical care).

TNS was opened to serve these children whose needs were predicted to be high and thus not adequately met by mainstream preschools. The TNS program served children aged two and a half to five years old who were drug exposed and who were often also raised in poverty and exposed to various forms of violence. Although not exclusively, TNS continues to serve a population that is predominantly drug-exposed at birth and raised in unstable situations (i.e., under intense financial pressure, surrounded by drug abuse or domestic violence, and/or with multiple foster placements) as young
children. According to the most recent TNS Program Overview report, TNS has a stated mission to provide:

individualized counseling and education services for two and a half to five year olds who suffer from serious emotional disturbances…TNS provides services for children whose past traumas have resulted in extreme behavioral, emotional, and/or learning challenges… they often have difficulties processing and regulating their emotions…TNS uses developmentally appropriate, play-based therapy with behavioral foundations to provide a structured, consistent, and nurturing environment which supports educational and emotional development. (TNS Program Overview, 2002).

TNS operates from a loose, undefined theoretical orientation that contains behavioral interventions and object relations work. In conversations with staff it was revealed that there is no defined approach to providing intervention. In addition, it was revealed that the efficacy of TNS is not something that the program or its staff discuss or examine explicitly. Treatment plans are drawn up for each student upon admission by the assigned therapist and contain specific behavioral goals and objective measures. These treatment plans are reviewed and revised every six months. If a goal is met it is dropped from the treatment plan. If a goal is not met it is rolled over to the updated treatment plan and possibly revised. Although semi-objective measures of outcome are in place at TNS, the information is not tracked or assessed with regards to overall program efficacy.

As was pointed out earlier, therapeutic nursery schools have an important and unique position from which they can create meaningful, long lasting change. TNS is one of these programs. It seems logical that such programs would strive towards effectiveness. As noted previously, children who exhibit problem behaviors or mental health issues tend to have more frequent and more serious problems as they age, therefore, helping them at as young an age as possible reduces their risk, and the cost to
their families and society. Unfortunately, little research has been done to demonstrate the overall efficacy of therapeutic nursery schools. Generally, the research that has been done seems to indicate that they are inconsistent with some proving effective, some only helping a portion of their students, and others seemingly ineffective altogether. These studies will be detailed below.

**Outcome Studies for Therapeutic Preschool Programs**

Programs can be evaluated in many ways depending on the aspect of the organization that is being considered. For example, program design, planning, implementation, monitoring, and effectiveness can all be studied and the methods for each would be different (Smith, 1990; Steinberg, 2004). In the context of this study, the effectiveness of TNS is the main concern and will be looked at by way of an outcome study. Effectiveness for TNS within the confines of this study is defined as a statistically significant reduction in behavioral, social, and/or emotional problems. The ultimate goal of evaluating programs via outcome studies is quality assurance and professional accountability. Such objective attempts to assess and ensure quality are important as research has shown that to a large extent mental health care providers measure progress or outcome of therapeutic interventions in subjective, self-imposed, and unsystematic ways (Drisko, 2001). When objective measures are taken, many agencies resort to tracking the *quantity* of services provided (i.e., number of clinical hours, number of clients, etc.) rather than the *quality* (Fisher, 2001). As mentioned previously, early interventions for children exhibiting mental health issues have the possibility of greatly improving an individual’s quality of life, saving public monies, and thus positively impacting society. For this reason it seems important that such programs consider and
work towards program efficacy and positive outcomes. Research has been done on such programs and is described below. All of the studies mentioned in the following section assess intervention or program outcome for preschool aged children who exhibit behavioral and/or emotional problems but are not mentally retarded. These studies are described in some detail in order to review study designs, interventions offered, and outcomes as this is all particularly relevant to the research at hand.

The first rigorous outcome study of a clinic based preschool mental health program was done in England by Woollacott, Graham, and Stevenson (1978). A few previous attempts had been made to examine whether interventions worked with the preschool age group but these studies were not sound in design (i.e., no control, no pre/post, done in retrospect; Woollacott et al., 1978). Woollacott, Graham, and Stevenson conducted a study that examined the outcome of work being done by the psychiatric day centre at the Hospital for Sick Children in London. The day center served preschool aged children who were exhibiting behavioral management problems and/or developmental delays. The center aimed to reduce the level of disturbance in the child by predominately helping parents become more aware of and informed about their children in an environment that was caring, supportive, and offered modeling. Children and their families attended the center one day a week to receive family therapy, parent groups, individual therapy for the parents, and marital therapy, all in a therapeutic milieu for the children. Individual child therapy and or behavior modification was provided at times but the research did not specify to what extent. Standardized scales developed by the researchers: a behavioral screening questionnaire (BSQ; Richman & Graham, 1971) and a behavioral checklist (BCL; Richman, 1977) were administered to mothers at the start of
the study that documented each child’s behavior problems details with regards to type and intensity. In addition, a structured interview was carried out in which overall family well-being was assessed for stability, mental health of parents, pressures, and so on. One year after the initial interview the scales were completed again. A control group was identified and drawn from another study that administered pre- and post-tests of the same scales a year apart to preschool aged children. The control group was matched to the experimental group for severity of problem behaviors, clinical assessment, family mental health, gender, social class, and BSQ scores. Comparison of the two groups revealed no differences. Both groups of children made progress between pre-and post-tests but the difference was not significant and the experimental group that received the intervention was not different from the control group that received no intervention. The researchers concluded that the program was ineffective, at least as far as could be seen with these measures of the reduction of problem behavior, which led them to question the resources allocated to the program and to comment that “It should not be forgotten that the mere provision of any sort of facility…for a particular group of disadvantaged or handicapped children does not by itself constitute a benefit for such children” (Woollacott et al., 1978). This last comment is quite relevant to the study at hand as it highlights the need for critical assessment of mental health work and also challenges the common assumption that an existing program (especially a long-standing one) is effective.

Shortly after Wollacott et al. (1978) had published their study in England, Rickel, Smith, and Sharp (1979) were beginning a related study in Detroit, Michigan. Rickel et al. looked at a screened population of preschool children in a Title 1 Detroit public school preschool program in order to determine if their program of screening and intervention...
could be effective at helping poor, nonwhite preschool children overcome “school maladaptation” which includes social, emotional, and behavioral problems that interfere with a child’s ability to learn. The researchers screened children using multiple measures (the Caldwell Preschool Inventory, the AML, the Classroom Adjustment Rating Scale, and a developmental history) completed by teachers to identify “high risk” students; this screening served as a pre-test. These students were then randomly assigned to either an experimental group or a control group. The experimental group received individualized therapeutic interventions (based on behavioral observation of child) four times a week for 15-20 minutes each time over the course of eight months. Intervention was provided for the observed problems of hostile, aggressive behavior or shy, withdrawn behavior and consisted of targeted activities and interactions. For example, aides working with a hostile, aggressive child might encourage verbalization of aggressive feelings or redirect aggression into more acceptable outlets. Aides working with a shy and withdrawn child might engage in physically close activities (i.e., holding a child in lap while reading a book) to convey warmth and acceptance. The intervention was delivered by trained “undergraduate aides” who were also closely supervised. The content of the intervention might change as the child responded or failed to respond or new issues arose. The control group received time with aides but were given traditional preschool tasks during this time that were not specific to the child or strategic to their problem type. At the end of the school year, eight months later, teachers again completed the same measures. The researchers found that behavior and learning were positively modified in the experimental group and that both problem types - acting out or aggressive behavior and those who were withdrawn or shy - improved. This study also revealed that trained
paraprofessionals could effectively deliver a therapeutic intervention and that the proven mental health intervention for school adjustment could be effective with a new population - poor, nonwhite preschoolers.

Despite being dated, the Rickel et al. (1979) study shares many structural features with the current research and its findings are also useful. The researchers exhibited the efficacy of an intervention seemingly not so different from the one TNS delivers (to be described in the methodology section). In addition, their finding that paraprofessionals are capable of effectively delivering mental health interventions is relevant as most clinical work at TNS is completed by unlicensed interns who are students working towards a degree. It is unfortunate that the intervention itself or the description of the intervention in the literature is somewhat vague and not clearly based in a theoretical orientation. This makes it difficult to both compare with other programs and emulate in practice.

Anderson, Long, Leathers, Denny, and Hilliard (1981) also conducted a study that examined the overall efficacy of a specific therapeutic preschool: The Therapeutic Preschool (TPS) linked to Duke University’s Child Psychiatry Department. However, unlike Rickel et al. (1979) these researchers found their program to be more effective for children with problems related to being shy and withdrawn. Anderson et al. (1981) conducted a relatively simple outcome study that also considered whether children exhibiting different predominant problem types responded differently to the school’s intervention. TPS was a half-day program in which teachers guided children through structured activities (i.e., reading books, dramatic play, art, free play, etc.) and preacademic work (i.e., learning concepts such as big/small, etc.). During these activities
teachers offered individualized interventions per clinical guidance from Duke staff and students. Children were made aware of their “behavior goals” and received stars on a chart for success. Predictability, consistency of the program, and the emotional attunement of teachers were the main therapeutic components of the program. There was no individualized therapy for children, but the program did engage in ongoing supportive work with parents that aimed to help parents 1) understand their children better, 2) increase parenting skills, and 3) to ventilate frustrations. Most children in the program were from low-income households and male. Pretests of the Preschool Behavior Questionnaire (PBQ) and subjective ratings were collected from teachers and used to determine each child’s predominant problem type - either hostile/aggressive or anxious/withdrawn. Overall, the program was found to be effective in reducing problem behaviors across the total group. However, the authors found it more meaningful that when the two problem subgroups were considered separately, the anxious children did significantly better. Their conclusion was that the program was only effectively serving the anxious/withdrawn children. The Anderson et al. study highlights the possibility that response to treatment may well be a function of diagnostic category and that it is important as a researcher to look closely and carefully at such data. Anderson et al. point out the importance of a program’s self-awareness about the intervention it offers and who is most likely to benefit from such intervention as this information has implications for admission decisions or individualizing treatment.

Cohen, Bradley, and Kolers (1987) looked to evaluate outcome for the Thistletown Regional Centre, a therapeutic day treatment program for preschoolers, located in Ontario, Canada. The aim of the study was to examine which children were
most likely to benefit from treatment in a therapeutic nursery school as well as to examine the process and pattern of change over the treatment period. The therapeutic intervention consisted of five half days a week for one to two years during which prescriptive interventions were carried out by teachers under the supervision of a clinical team. The preschool students were in the program for behavioral and emotional disturbances, developmental lags, and/or speech and language disorders and were compared to non-clinical comparison group composed of children from nearby day care centers. Participants were administered a battery of objective developmental, behavioral, and clinical measures at an initial test point, after nine months, and at discharge. The researchers used multiple measures and multiple information sources (child, teacher, and parent) to assess change in the varied areas in which the program aimed to build competence. In the analysis of data, the researchers identified and compared three subgroups - developmentally delayed, language delayed, and those with behavioral or emotional problems. The results indicated that the participants with developmental delays and associated emotional and behavioral problems made the most gains, especially those who had normal-range nonverbal IQ scores at the time of initial testing. Significant gains were not observed in children who presented mainly with behavioral problems. Cohen et al. concluded that interventions for delayed children need to be prolonged and that the time needed to observe gains depends upon the area of functioning being considered and the child’s original developmental level.

Cohen, Kolers, and Bradley (1987) also conducted a follow up to this study. Their second study looked to identify possible predictors of treatment outcome for children in the original study (described previously). Biological and psychosocial risk indices, age at
admission, length of treatment, and parent involvement were all examined with regards to overall treatment outcome. They found that different independent variables were related to different outcomes. Treatment length was found to be very important in generating desired outcomes with the authors suggesting that up to two years of continuous treatment may be necessary for children to achieve reasonable progress. The authors also found that parent involvement was not important when looking at a child’s ability to improve receptive language skills and/or reduce shy or withdrawn behaviors. Lastly, the authors found that biological risk factors did not relate to outcomes. This may be important as it affirms that environmental changes and exposures have the ability to create change. These two studies combined are important and relevant because they present findings that might be useful in understanding and then addressing TNS’s own outcomes.

Reams and Friedrich (1994) conducted a study of play therapy as a mode of intervention within a therapeutic nursery school setting. The authors compared 36 maltreated preschoolers who attended a therapeutic nursery. Half of the students were in the milieu alone (as was usually the case) and the other half were in the milieu and received carefully planned individual play therapy as well. Pre- and post-tests were collected 15 weeks apart that measured intellectual ability, development, social skills, problem behaviors, and school readiness. Comparison of these scores revealed that there was only one significant difference between groups. Children who received both milieu and individual therapy showed superior progress in social skill development and exhibited less isolated play; however, at a ten-week follow-up testing no significant differences were found between groups. This study seems to suggest that play therapy
may not be a powerful intervention. This finding is important to keep in mind when considering what aspects of the TNS program require the most attention and care. Play therapy with a counselor is a key component of the TNS intervention.

Oates, Gray, Schweitzer, Kempe, and Harmon (1995) evaluated a therapeutic preschool for children who had experienced sexual or physical abuse. The program provided education five half days a week, therapy 1-2 times weekly, home visits, and parent education with the hopes of improving the students’ development, social skills, and emotional functioning so that they would be able to enter the public school system. Twenty-four children were included in the study and assessed at admission and after 12 months. Results indicated that children did improve developmentally at a rate that was faster than expected. There was, however, a wide variation in the children. The researcher identified a “common sense finding” that the students in stable homes did better than students that were in homes where some form of abuse was still going on. The authors advise that any programs with such populations be dedicated to working with the parents, with the assumption that parental interaction is an essential element to the child’s success.

Most recently, Ware, Novotny, and Coyne (2001) evaluated effectiveness of the Preschool Day Treatment Center of the Menninger Clinic, a program that offers therapeutic services for “seriously disturbed preschoolers” aged two to five years old. Treatment included education in a “stimulating environment,” individual and group therapy, play therapy, and some family therapy for five half days a week. Multiple measures from multiple sources were used to assess the following areas: problem behaviors and emotional problems, social skills, visual and motor integration, adaptive skills, ability to participate in a traditional school setting, and maternal depression.
Measures were collected at admission and at nine months after admission or at discharge (which ever came first). These pre/post scores were compared. The results indicated that there was significant improvement between pre- and post-scores and that this change may have been due to the therapeutic nursery intervention. The study was limited in its ability to determine causality due to the lack of a control group and the small sample size but seems to suggest good outcomes. This study is important as it is the most similar (in population, intervention, and study design and limitations) to the current research.

As stated previously, these studies indicate inconsistent findings. Sometimes children seem to do better because of a therapeutic nursery school program and sometimes they don’t. These findings are difficult to generalize from. Each program is unique and specific to its setting, staff, and time period. The review suggests that a program must undergo its own outcome study to determine efficacy in that comparisons to programs with similar populations and similar interventions may not be a reliable indicator of outcomes.

“Best Practices” for Mental Health Intervention with Preschoolers

There are a few studies that identify “best practices” for programs that provide mental health service to preschool aged children. These tend to be meta-analyses - studies that synthesize multiple studies to generate an overall picture of an average intervention. They are described below.

Greenspan and White (1985) presented an overview of 150 efficacy studies of preventative interventions with children under the age of five. Interventions and populations served varied greatly. What united them in this study was pre/post or control group design and an early intervention in the lives of children exhibiting difficulties
(either physical, emotional, or social). Overall, the authors found that interventions had a statistically significant positive effect at the time of termination. The long-term effects of such interventions were less compelling. Greenspan and White (1985) recommend further study to better understand how to prolong the positive effects of early interventions. In addition, these researchers strongly advised the development of comprehensive programs that aim to address physical, cognitive, emotional, and family functioning simultaneously. “Whenever one attempts to promote growth and development in an organism, while only paying attention to one dimension of that organism and ignoring all other relevant dimensions which have an interactive effect, one is leaving a great deal to chance” (Greenspan and White, 1985, p. 5).

Scruggs, Mastropieri, Cook, and Escobar (1986) evaluated early intervention techniques for preschool children with conduct disorders. Their research included 16 studies in which a single-subject methodology was used to examine specific interventions for children five and a half years old and younger who were identified as “behaviorally handicapped” which included aggressive, noncompliant, disruptive, and/or difficult to control behaviors. The interventions in the study were categorized as one of the following: punishment/timeout, reinforcement, or differential attention (social praise). Overall, the 16 studies employed 23 subjects for whom the results of 48 specific treatment interventions were reported. Results indicated that reinforcement, especially tangible reinforcement, produced the most positive outcomes followed by punishment/timeout and then differential attention. Participant characteristics such as sex, disorder/diagnosis or target behavior bore little relation to treatment outcome. Interventions delivered at home and by parents proved to be slightly more effective.
Participants who were four years old or younger at the time of intervention proved to do generally better than participants who were older than four years old. The information from this metaanalysis is useful in that it lends support to the behavioral theoretical orientation that TNS currently maintains. In addition, it may indicate possible areas of adjustment to improve the delivery of interventions at TNS.

Bestan and Eyberg (1998) conducted a review of 82 studies of psychosocial treatments for children with conduct disorder and found only two “well-established” treatment programs. One was the “Living With Children” manual and the other was “The Incredible Years” (Webster-Stratton, 2001) program. Both programs teach parents to monitor and reward positive behavior and to ignore or give consequences for problematic behavior (i.e., time outs, etc.). The “Incredible Years” program also develops parental self-control and monitoring techniques. Both of these interventions are delivered in short-term groups and have been shown to be more effective than standard treatments for children with conduct disorders (i.e., psychodynamic therapy, client-centered therapy). Although this review identified proven programs that are applicable for preschool-aged children, there were 5,272 children in the studies and it was not clear how many were preschoolers.

Nelson, Westhues, and McLeod (2003) examined the impacts of preschool intervention programs on disadvantaged children’s cognitive and social development and parent-family wellness. They found that, on average, preschool intervention programs that included an educational component for children produced greater initial improvements in cognitive development than those that did not. These gains were not likely to be sustained, however, unless the program included a follow-up component into
elementary school. If such follow-up was provided, the cognitive gains lasted twice as long. Nelson et al. also found that the intensity and length of the preschool intervention program was related to better outcomes. Based on their research the authors suggest that interventions be a year or longer with 300 or more “sessions.” A “session” in the context of this study was a half day at the preschool. Interestingly, Nelson et al. (2003) found that the preschool intervention programs were most effective when serving predominantly African American children and their families. This can be understood by understanding race as a proxy for high-risk status as African American children experience “severe economic disadvantages and related environmental stressors (high rates of neighborhood poverty, crime, and violence)…African American children more likely to live in poverty than White European American children, [and] they live in the most dire and prolonged states of poverty” (Nelson et al., 2003, p. 4). Children and families who are “high risk” have multiple problem areas which provide more opportunity and range from which to show improvement from an intervention. The authors also found that preschool interventions programs must have at least two components – one targeting child functioning and one targeting parenting skills to achieve long-term gains.

Dunlap et al. (2003) conducted a meta-analysis that looked to identify effective, empirically proven intervention techniques that have been developed to reduce “challenging behaviors” in preschool aged children. “Challenging behaviors” in the context of this study included developmental delay, autism, ADHD, learning disabled, at risk for behavioral disorders, and emotional-behavioral disorders. The authors reviewed the following intervention categories separately: positive behavior support, stimulant medication use, applied behavior analysis to promote social interaction, classroom
preventative practices, and social and emotional learning programs. Positive behavior support (PBS) refers to a group of intervention strategies that included functional behavior assessment, functional communication training, self-management, and choice making. Overall, PBS presented as a powerful intervention technique with a “high confidence rating.” Stimulant medication did prove effective with regard to reducing “off task and noncompliant” behaviors and increasing “sustained attention and social skills.” Despite this, stimulant treatment received an overall low confidence rating. This was due to (1) a lack of data regarding the effects of medication on critical areas of functioning (i.e., social skills, cognitive ability, and pre-academic skills), (2) a lack of data regarding the overall long-term effects., and (3) compelling data that young children are more prone to experience undesired side effects. The Applied Behavior Analysis (ABA) interventions to increase pro-social behavior included teacher prompting and praise, peer mediation, group-oriented contingencies, and affection training. All were found to have medium to high confidence levels. Classroom preventative practices are designed to help children understand the rules and routine of the classroom as well as the expectations of the adults in their environments. These strategies include classroom arrangement, transition planning, schedules/routines, and classroom rules/expectations. Classroom arrangement and managing transitions were more effective (medium confidence rating) in managing children’s behaviors while consistent schedules and routines were only mildly effective (low confidence) and the research on ensuring clear classroom rules was inconclusive. Lastly, the authors considered comprehensive social emotional curricula. These are “manualized” (defined in a manual/text usually purchased with accompanying materials) programs that focus on fostering protective factors and reducing risk factors.
The stand-out intervention for preschoolers was “The Incredible Years: Dinosaur School” (to be described in detail below).

McClellan and Werry (2003) conducted a metaanalysis of published reviews and Medline searches that addressed child psychiatry, psychotherapy, drug therapy and treatment effectiveness evaluations where randomized controlled trials were used. Their aim was to generate a list of evidence-based practices for working with child clients with mental health issues. McClellan and Werry (2003) found that the best supported psychosocial interventions were cognitive behavioral and behavioral interventions, especially for mood, anxiety, and behavioral disorders. Family-based systems of care intervention were also found to be effective. These findings are interesting but it was not clear what age the children were in the studies considered. For this reason the results are suggestive but not directly applicable to services provided at TNS.

Hester, Baltodano, Gable, Tonelson, and Hendrickson (2003) conducted a meta-analysis of early interventions with children at risk for emotional/behavioral disorders to identify aspects of this body of research. In this review they identified that the earlier the intervention is introduced into the child’s life and the longer the intervention lasts the more effective it will be. They also found that multidimensional intervention is essential for success in early intervention and that assessment. The authors also highlight the important role of responsiveness, engagement, stability, and predictability (essentially a positive attachment experience) in providing the foundation for a positive relationship between a child and teacher or therapist. Interestingly, this was the only meta-analysis to mention attachment theory as an important aspect of intervention with children.
Conroy, Hendrickson, and Hester (2004) identified evidence based intervention practices for preschoolers in their piece on the early identification and treatment of emotional behavioral disorders. Based on the research, the authors noted two well-supported interventions for preschool-aged children: the Regional Intervention Program (RIP) and The Incredible Years package. These two interventions have been shown to be effective in multiple studies and with varied populations. Although TNS does not use either of these specific interventions, it is useful to identify key components of proven interventions for comparison later. RIP is a hands on training program with parents in behavioral principles (intended to change their interactions with their children) that appears to have positive long-term implications in reducing factors related to emotional behavioral disorders in children (Strain & Timm, 2001). Key components of this program are: early intervention (before the age of 5); treating problem behaviors instead of relying solely on diagnosis (which allows children who are not at the clinical level to receive treatment); ongoing, year-round enrollment so parents and children do not have to wait for treatment; intense parent involvement as program implementors; data-based interventions; peer support for parents; follow-up services (if needed); and a systemic program evaluation that ensures the program is accountable to clients. The Incredible Years (Webster-Stratton, 2001) is an empirically verified intervention program for children 3-12 years old with conduct disorders. The program promotes social competence while preventing and treating conduct problems and aggression by way of intensive training of parents, teachers, and children. The goals of this program are to promote social competencies in the child, promote parent competencies and strengthen families, and to promote teacher competencies and the home-school connection. The parent
component is a twelve-week training group that addresses identifying their child’s pro-
social and problem behaviors and their responses to those behaviors. They are also taught
skills like interactive play, reinforcement, use of time out, and skills to ignore problem
behaviors. The teacher training is similar but highlights teacher attention and praise,
reinforcement to motivate children to behave in appropriate ways, and developing social
skills and problem solving skills in the classroom. The child component of the Incredible
Years is called *Dina Dinosaur Social Skills and Problem-Solving Curriculum* (Webster-
Stratton & Hammond, 1997) which teaches social competence, peer interaction skills,
and conflict resolution skills. Research on both of these specific interventions indicates
that they create good results and that these effects are durable and replicable.

Bates (2005) conducted a meta-analysis of empirical studies that assessed the
effectiveness of interventions that included both family and school components for
preschool aged children. Fifteen studies were found to meet the selection criteria. Most of
these studies employed group designs and offered a variety of intervention approaches
including child education, parent involvement, family literacy, family therapy, parent
training, and home-school collaboration. Targeted problems or behaviors fell into one of
the following areas: conduct problems, academic development, cognitive development,
social competence, targeting parenting behavior, or teacher skill. Most participants in the
studies were between four and six years old and were from lower socioeconomic
households. Bates (2005) found that interventions take many forms and target a variety of
problems and behaviors, and generally show positive effects. There were no trends about
which type of intervention or focus was more effective than others, however, a few
interventions proved particularly efficacious. These were: the parent and teacher training
“The Incredible Years Training Series” mentioned previously (Webster-Stratton, 2001); the parent education program “PARTNERS” (Webster-Stratton, 1998); and the behavioral modification and behavioral family therapy inherent in Parent-Child Interaction Therapy (McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991). The findings of this study lend support to the behavioral-theoretical orientation from which TNS currently operates (as did many of the other metaanalyses). It also identifies specific, proven, manualized interventions that could be added to the TNS program to improve outcomes (if needed).

Tse (2006) reviewed the literature on treatment of preschoolers with disruptive behavior disorders to identify programs that have been effective and interventions that have been tested clinically that might be useful in existing clinical day treatment programs. Tse included studies that looked at either 1) day treatment programs that had prospective data and quantitative outcome data or 2) laboratory-based intervention studies that were randomized and controlled. In reviewing the day treatment programs, Tse found that there was only modest evidence that multimodal day treatment programs were effective (similar to the conclusion of this researcher in the previous section). In contrast, Tse found laboratory-based interventions to be consistently effective. The laboratory-based interventions were grouped into the categories of prevention programs, parent training, child-oriented intervention, and classroom-based interventions. Within each of these categories there were efficacious interventions, however, a program mentioned in all four categories was The Incredible Years program that includes parent, child, and teacher components (described previously). Tse concluded that existing day treatment programs should try and incorporate the lessons from such studies. Such
lessons include: provide a high quality educational experience for the child; use behavioral reinforcements; emphasize social problem-solving skills; provide creative methods of delivering the skills-oriented curricula; use manualized, proven programs (if possible); include home visits in services; help meet the daily needs of families (food, health care, transportation, etc.); include parent training and support, as it is an important and necessary part of working with families and children; and ensure that teachers and clinicians have continued education and training.

Taken together, these meta-analyses suggest the following “best practices:”

- Use behavioral interventions with tangible reinforcements;
- Use proven, manualized programs, if possible;
- Include parents in the delivery of the intervention;
- Offer multicomponent interventions that include parent training and support as well as child services;
- Get children in earlier; and
- Have them stay longer.

These meta-analyses are useful in relation to this study in that they either validate or lend support to interventions similar to TNS or point towards possible improvements (if needed). It is important to note here though that although meta-analyses strive to find “bigger broader truths” by looking at multiple studies in a particular field with a particular focus, there are still reservations about and limitations with such research formats.

Although meta-analysis brings a level of quantitative rigor to the analysis of programs, the conclusions need to be put to the same kind of careful examination for
possible alternative explanations as one would with any quantitative report. This raises a more general question about the value of meta-analyses that aggregate heterogeneous programs in an effort to make statements about the value of some superordinate category of interventions (Olds, 2003).

Summary

In summary, this review of the literature indicates that therapeutic nursery schools sometimes produce positive change for some children. What becomes apparent when considering the outcome studies of individual programs is that each program is unique. Programs are likely successful because of their particular configurations of program design, target population, clinical methods, and service-provider characteristics. Specifying precisely what constitutes a quality program of early intervention is not a simple task. The research around best practice and/or evidence-based interventions offers some guidance but is useless for an in vivo agency without first conducting an initial outcome study of the agency to determine baseline functioning and identify areas of success and areas for improvement. This is the intent of the current research.
CHAPTER III
METHODOLOGY

Problem Formulation

The purpose of this study was to evaluate the effectiveness of the intervention provided by the Therapeutic Nursery School (TNS) program. This research examined the outcomes of seven children in the program who were between 21/2 and 5 years old. The study was intended to explore the causal relationship, if any, between the interventions provided by TNS and the behavior, emotional, and social problems of students. The major question that was addressed in the research was, “Did the TNS program reduce problem behaviors in its students and thus increase positive behaviors such as successful social skills, appropriate emotional expression, and pro-school behaviors?” The secondary question was, “Were there specific aspects of the program or population that seemed to indicate ways to improve the TNS’s overall outcome effectiveness? This research consisted of quantitative outcome measures combined with qualitative data, in a quasi-experimental, mixed methods design. This design was selected as a first, basic step towards instituting a possible institutionalized outcome measure at TNS.

Program Description and Intervention

TNS is divided into two classrooms or groups - the Green Turtles and the Blue Dolphins. The Green Turtles are the younger and/or less developed and the Blue Dolphins are older and/or more developed. Students usually move from Green Turtles to Blue Dolphins before graduating onto kindergarten at a different school. All TNS
students attend “circle time” in which teachers guide students through songs, stories, and some educational instruction such as telling time, days of the week, seasons, feelings, shapes, and so on, depending on group level. During “circle time” children are encouraged to sit still, follow directions, and participate appropriately. TNS students also engage in daily structured activities such as art, gardening, “goop,” bubbles, washing toys, tumbling, and unstructured play in yard or inside. Children receive breakfast, lunch, and snack, and are required to nap or take a “quiet time” each day. In addition to these daily activities, each child receives individual therapy at least once a week with an assigned clinician. Clinicians provide ongoing family support, case management, and assist teachers in the milieu with the daily activities of the school (i.e., help with lunch, nap, and teaching as needed).

TNS Staffing

At the beginning of this study, TNS had nine staff – two teachers, one head clinician, one director, and five interns. There were two full time teachers who had been at the school for two and six years respectively. Each of these teachers had the 13 hours of training required to qualify as a Mental Health Resource Specialist in Alameda county. There was one full time head clinician who had an MSW, was licensed by the state of California, and had been there two years at the time of this study. The director of the program was an unlicensed MFT who rose up through the ranks and had been at the school for a total of five years. These staff members received little ongoing training through the agency, were paid competitive wages, received health and dental benefits, and the sum of 10 weeks paid time off each year.

In addition to the paid, year round staff, there were five part-time, unpaid interns
who served as clinicians and teachers’ assistants. These interns were in graduate school usually working towards a masters in social work or a masters in counseling. They were present anywhere from one to five days a week for eight to twelve months depending on the program. Interns received one hour of weekly supervision from a licensed clinical social worker.

*TNS Student Description*

In order to be admitted into the TNS program, a child must have lived in Alameda County and have been covered by Medi-Cal, a state-provided insurance while enrolled. These two requirements were fiscally motivated as it was the only way TNS received reimbursement for services provided. Parents/caregivers were required to provide transportation to and from school and have a phone for emergency contact if needed. Clients were referred to TNS through word of mouth, child welfare workers, Child Protective Services, foster agencies, other schools, and parental stress service organizations. There was no explicit behavioral or emotional requirement for entry into the program, however there were some identified symptomatic behaviors common to this population.

According to client files at the start of the study, the most frequent presenting problems were, listed in order of frequency, impulse control, social skills, anxiety, poor boundaries, oppositional behavior, and conduct. The most frequent DSM diagnoses included, listed in order of frequency, Attention Deficit Disorder, Adjustment Disorder, Post Traumatic Stress Disorder, Generalized Anxiety Disorder, Reactive Attachment Disorder, and Dysthymic Disorder. Almost all TNS children had been subjected to some form of abuse - be it sexual abuse, physical abuse, or neglect, prior to enrollment. Most
clients at TNS were African American male children from lower income households. Compared to the surrounding community, TNS had an overrepresentation of males, an over representation of African American and Hispanic students, and an overrepresentation of low-income families. Conversely, TNS had an under representation of female and Caucasian students. Although no research had been done to specifically explore why such demographics exist at TNS, it is likely due to the documented effects of poverty and racism on families and children (Nelson et al., 2003), as well as, culturally informed gender differences in how emotional difficulties are expressed (Green, 1996).

**Sampling Population**

At any one time, there can be up to 18 children enrolled in TNS. At the start of the study, there were 17 students enrolled. At points during the study, TNS struggled to maintain full enrollment and had an all time low enrollment of 6 students for about a month and a half. At the start of the study, the school had 9 males and 8 females who were 2 1/2 to 5 years of age. Of this population, 11 were living with biological parents and 6 were living in foster placements. There were 13 African American children, 3 Hispanic children, and 1 Asian American child in the program. Ten were noted as drug exposed in their charts. All children were receiving supplemental income and medial insurance from the government. Regarding admission symptomology, 15 of the children presented with aggressive, acting out behaviors and 2 were depressed and/or shy/withdrawn; the diagnoses were: Reactive Attachment Disorder, Attention Deficit Hyperactive Disorder, Post Traumatic Stress Disorder, Parent Child Relational Issue, Adjustment Disorder with Mixed Emotional features, and Generalized Anxiety Disorder. The selection of participants in this study was non-random and purposeful. The only
requirements were that the child be enrolled at TNS and that the reporting participant (parent/caregiver, teacher, therapist) be able to read English or Spanish. No other selection criteria were imposed.

Tests and Measures

Because the purpose of this research was to determine the effectiveness of a day treatment program for preschoolers, the plan was to assess children at the start of the study (or upon admission to the school thereafter) and at the end of the study (or at discharge if this occurred earlier). In order to be considered valid, a child had to remain in the TNS program for at least 3 months, on a consistent basis. Because the primary concern was evaluating change, the focus was on pre- and post-test comparisons. A multi-reporter standardized test was used to identify and describe changes that may have resulted from treatment. Parent/guardian, teacher, and therapist ratings were collected to determine behavioral and emotional problems of the children. Parent/guardian, teacher, and therapist raters each completed a paper and pencil measure independently for pre and post measures. In order for data on a specific student to be considered valid and usable in this study, six complete Achenbach System of Empirically Based Assessment (ASEBA) forms were collected. Specifically, one “pre-test” and one “post-test” from the parent/caregiver, teacher, and therapist were each collected. Incomplete data sets were not used. Incomplete data sets occurred in this study when parents/guardians did not return initial “pre” forms in a timely manner (2 cases), when participants left the program in an unplanned departure (1 case), and when participants left the program before the minimum three months had passed (1 case).
As a measure of behavior and emotional problems, the widely used Achenbach System of Empirically Based Assessment (ASEBA), formerly the Achenbach Child Behavior Checklist, was used. The ASEBA is a multi-rater (i.e., caregiver, teacher) test designed to assess the behavior and affect of youth. The caregiver(s) completed the Child Behavior Checklist and teachers and therapists completed the Teacher Report Form. Either form takes about 30 minutes to complete. These forms measure eight Syndrome scales and six DSM-oriented scales. The Syndrome scales are designed to elicit information about patterns of problems and include Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior. The DSM-oriented scales include Affective Problems, Anxiety Problems, Somatic Problems, Attention Deficit/Hyperactivity Problems, Oppositional Defiant Problems, and Conduct Problems. The ASEBA consist of 100 items that are rated: 0 = not true (as far as you know); 1 = somewhat or sometimes true; or 2 = very true or often true. Validity evidence of the ASEBA is extensive and in the range of \( p \leq .01 \) (Achenbach, 1991; Achenbach & McConaughy, 1997; Achenbach & Rescorla, 2000; McConaughy, Stanger, & Achenbach, 1992). Reliability of the ASEBA is also well proven and in the range of \( p \leq .85 \) for the parent form and \( p \leq .81 \) for the teacher/therapist form (Achenbach, 1991; Achenbach & McConaughy, 1997; Achenbach & Rescorla, 2000, McConaughy, Stanger, & Achenbach, 1992). The ASEBA was chosen for its proven reliability and validity, its specific version designed for preschool aged children, the relevance of measured constructs to TNS, and user friendliness.
**Procedures**

Parents/caregivers and TNS teachers and therapists were recruited and participated in slightly different ways due to the way they interacted with the agency. For parents and caregivers, the researcher set up a clearly identified table at the school near the administration desk. This table was set up twice - once at the beginning of the study (May 2007) and once at the beginning of the new school year (August 2007). The researcher briefly explained the study and its aims to potential participants as they dropped off or picked up their child. For individuals who participated, the researcher presented and collected the Informed Consent and provided the first ASEBA form with instructions to drop it in a secure, locked box at the school. Parents/caregivers were given one week to complete the pre-ASEBA. When it was time for post-ASEBA collection, the researcher again set up a table and contacted only those parents/caregivers that had participated earlier.

For TNS teachers and therapists, the researcher introduced the study at a staff meeting. The researcher explained the study, offered the opportunity to participate, and presented the Informed Consent. Those that opted to participate were given the pre-ASEBA at the meeting and given one week or one month to complete the forms and drop them in the locked box at the school. Teachers and therapists had one week to complete forms for students they already knew and one month for any newly admitted child whose parents had agreed to participate. When it was time for post-ASEBA collection, teacher and therapists were given forms and asked to return in one week.
Data Analysis

Descriptive statistics were used to describe demographic characteristics of the sample. Frequency distribution of all scores were obtained and examined for appropriateness for planned analyses. Paired t-tests were run to determine if there were changes between pre and post ASEBA scores. However, due to the small sample size the meaningful use of inferential statistics was limited. Trends were examined and described. Where interesting, individual cases were examined using qualitative methods.
CHAPTER IV

FINDINGS

Data were available for 7 children. There were 6 males and 1 female who were 2 1/2 to 5 years of age at the start of the study (mean age was 4.16 years, SD = 9.6). Four were living with biological parents and 3 were living in a family foster placement. There were 5 African American children, 1 Hispanic child, and 1 Asian American child in the study. All children were from households receiving supplemental income and medical insurance from the government. Many of the children had been subjected to physical abuse, sexual abuse, and/or neglect: 1 had documented physical abuse and 4 had suspected neglect. Four had been drug exposed in-utero. Six of the 7 participants had experienced some psychological trauma prior to participating in the study. Regarding admission symptomology, 5 of the children presented with aggressive, acting out behavior and 2 were depressed and/or shy withdrawn. According to the charts, only 2 had documented developmental, speech, or language delays. The DSM diagnoses for these seven children included Reactive Attachment Disorder, Attention Deficit Hyperactive Disorder, Post Traumatic Stress Disorder, Adjustment Disorder with Mixed Emotional features, and Generalized Anxiety Disorder. When compared to the broader demographics for the TNS program at the start of the study (provided earlier), the sample seems similar to the general TNS population in age, ethnicity, living situation, symptomology, and diagnoses. It does seem that girls may have been underrepresented in the sample. Although there are some similarities between the TNS population and the
study sample, it is important to acknowledge that the small sample size and the limitations this creates. No meaningful generalization can be drawn about the TNS program (or other similar programs) from this dataset.

Originally the intention was to examine the data collected using inferential statistics. The hope was to have impartial, objective, quantitative information with which to assess program outcomes; however, this was limited given the small sample size. Paired T-tests were run for the two most basic questions - first, was there a significant difference between TNS’s pre and post total problem scores and second, was there a significant difference between TNS’s pre and post subscales. In these tests the seven subjects were looked at as a group and compared averaged pre and post scores. These tests seemed to indicate that there were no significant differences between the pre and post groups on all scales which included the total problem score and the nine subscales (see Table 1). Although this seems to suggest that there was no significant change in problem scores after the TNS intervention, it is impossible to draw any meaningful conclusions as the sample is just too small. Due to this limitation, no further inferential statistics were run. The data was considered further with more qualitative and descriptive methods which follows.

Reviewing the cases overall, it seems there was little change in problem scores and related problem behaviors. For most participants, post scores were only slightly higher or lower than the corresponding pre score (see Tables 2-8). This seems to suggest that the TNS intervention had little effect - either negative or positive - on the problem scores of these participants. If all participants had responded similarly with
Table 1

*Overall Pre/Post Comparison for TNS Students as a Group*

<table>
<thead>
<tr>
<th>Problem Scale (range)</th>
<th>Mean Pre Scores</th>
<th>Mean Post Scores</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (18-70)</td>
<td>51.57</td>
<td>48.57</td>
<td>↓ 3.00</td>
</tr>
<tr>
<td>Internalization (7-23)</td>
<td>11.71</td>
<td>14.14</td>
<td>↑ 2.43</td>
</tr>
<tr>
<td>Externalization (5-31)</td>
<td>24</td>
<td>21.43</td>
<td>↓ 2.57</td>
</tr>
<tr>
<td>Emotional Reactivity (1-7)</td>
<td>3</td>
<td>3</td>
<td>=</td>
</tr>
<tr>
<td>Anxious/Depressed (1-6)</td>
<td>3.29</td>
<td>4.71</td>
<td>↑ 1.42</td>
</tr>
<tr>
<td>Somatization (0-6)</td>
<td>1.57</td>
<td>1.86</td>
<td>↑ .29</td>
</tr>
<tr>
<td>Withdrawn (2-9)</td>
<td>4.29</td>
<td>4.29</td>
<td>=</td>
</tr>
<tr>
<td>Sleep Disturbance (0-4)</td>
<td>1.57</td>
<td>1.43</td>
<td>↓ .14</td>
</tr>
<tr>
<td>Attention (1-14)</td>
<td>8.14</td>
<td>6.29</td>
<td>↓ 1.85</td>
</tr>
<tr>
<td>Aggression (4-24)</td>
<td>16.43</td>
<td>15.14</td>
<td>↓ 1.29</td>
</tr>
</tbody>
</table>
### Table 2

**Pre/Post Comparison of Scores - Participant 1**

<table>
<thead>
<tr>
<th>Problem Scale</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>34</td>
<td>63</td>
<td>↑ 29</td>
</tr>
<tr>
<td>Internalization</td>
<td>9</td>
<td>16</td>
<td>↑ 7</td>
</tr>
<tr>
<td>Externalization</td>
<td>18</td>
<td>30</td>
<td>↑ 22</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>3</td>
<td>7</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>3</td>
<td>5</td>
<td>↑ 2</td>
</tr>
<tr>
<td>Somatization</td>
<td>1</td>
<td>2</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>2</td>
<td>2</td>
<td>= 0</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>2</td>
<td>4</td>
<td>↑ 2</td>
</tr>
<tr>
<td>Attention</td>
<td>2</td>
<td>5</td>
<td>↑ 3</td>
</tr>
<tr>
<td>Aggression</td>
<td>16</td>
<td>24</td>
<td>↑ 8</td>
</tr>
</tbody>
</table>

Either marked increase or decrease in problems scores, this would have potentially indicated an impact trend, but this was not the case. There were two exceptions to this general trend of overall stability in scores. One participant’s score increased by 29 points and another participant’s score fell by 26 points. These two individual cases were examined more closely in an attempt to understand why their scoring profiles were so different from the rest of the participants. The first notable exception was “Erika,” a four and a half year old African American female who lived with her biological mother.
Table 3

*Pre/Post Comparison of Scores - Participant 2*

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>55</td>
<td>51</td>
<td>↓ 4</td>
</tr>
<tr>
<td>Internalization</td>
<td>14</td>
<td>13</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Externalization</td>
<td>24</td>
<td>24</td>
<td>=</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>3</td>
<td>2</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>4</td>
<td>5</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Somatization</td>
<td>2</td>
<td>2</td>
<td>=</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>6</td>
<td>4</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>1</td>
<td>1</td>
<td>=</td>
</tr>
<tr>
<td>Attention</td>
<td>10</td>
<td>8</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Aggression</td>
<td>15</td>
<td>16</td>
<td>↑ 1</td>
</tr>
</tbody>
</table>

According to her chart, Erika entered the program with the presenting problems of having “witnessed domestic violence at home” and “exhibiting possible Oppositional Defiant Disorder behaviors”. She was diagnosed with Generalized Anxiety Disorder while at TNS. Within this study, Erika’s overall problem score increased by 29 points indicating more problem behaviors and increased severity in preexisting problem behaviors. In an attempt to understand and/or identify possible factors in this seemingly large increase in problem scores (indicating a worsening of problem behaviors), variables such as rater
Table 4

Pre/Post Comparison of Scores – Participant 3

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>57</td>
<td>50</td>
<td>↓ 7</td>
</tr>
<tr>
<td>Internalization</td>
<td>7</td>
<td>11</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Externalization</td>
<td>31</td>
<td>22</td>
<td>↓ 9</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>3</td>
<td>3</td>
<td>=</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>2</td>
<td>4</td>
<td>↑ 2</td>
</tr>
<tr>
<td>Somatization</td>
<td>1</td>
<td>0</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>2</td>
<td>3</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>2</td>
<td>1</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Attention</td>
<td>9</td>
<td>6</td>
<td>↓ 3</td>
</tr>
<tr>
<td>Aggression</td>
<td>22</td>
<td>16</td>
<td>↓ 6</td>
</tr>
</tbody>
</table>

Stability, time in the program, attendance, and number of therapy sessions received were considered but revealed nothing. All three reporters (parent, teacher, therapist) were the same for pre and post ratings. In addition, these three raters had “average” or “above average” correlations of their perceptions of Erika in both pre and post tests (Q = .27-.49). Erika was in the program for 6 months when the average length of treatment was 5 months. She attended the program 81 times in a six month period when the average was 82, and she received 17 individual therapy sessions when the average was 14.
Table 5

*Pre/Post Comparison of Scores – Participant 4*

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>49</td>
<td>47</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Internalization</td>
<td>8</td>
<td>12</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Externalization</td>
<td>25</td>
<td>22</td>
<td>↓ 3</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>2</td>
<td>3</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>1</td>
<td>5</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Somatization</td>
<td>2</td>
<td>0</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>3</td>
<td>4</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>0</td>
<td>0</td>
<td>= 0</td>
</tr>
<tr>
<td>Attention</td>
<td>8</td>
<td>7</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Aggression</td>
<td>17</td>
<td>15</td>
<td>↓ 2</td>
</tr>
</tbody>
</table>

With regard to these factors, it seems that Erika was at least on par with other participants in the study. She received no outside services from other providers.

In reviewing Erika’s chart, discussions with TNS staff, and an interview with Erika’s mother, “Diana,” it became clear that in fact there were many possible reasons why Erika’s problem score increased dramatically. Within the time of the study, Erika’s biological father reentered her life and her mother’s current husband was released from prison and rejoined the household (both men were perpetrators of domestic violence in
Table 6

*Pre/Post Comparison of Scores – Participant 5*

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>55</td>
<td>41</td>
<td>↓ 14</td>
</tr>
<tr>
<td>Internalization</td>
<td>15</td>
<td>16</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Externalization</td>
<td>24</td>
<td>21</td>
<td>↓ 3</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>3</td>
<td>3</td>
<td>=</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>5</td>
<td>4</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Somatization</td>
<td>1</td>
<td>2</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>6</td>
<td>6</td>
<td>=</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>1</td>
<td>1</td>
<td>=</td>
</tr>
<tr>
<td>Attention</td>
<td>14</td>
<td>8</td>
<td>↓ 6</td>
</tr>
<tr>
<td>Aggression</td>
<td>13</td>
<td>13</td>
<td>=</td>
</tr>
</tbody>
</table>

the household). In addition, her mother began caring for a 2 ½ year old boy who also began attending the TNS program. This amount and quality of change was likely difficult for Erika. Diana admits that Erika does “better” with one-on-one attention and is “jealous of all these other people being around.” “She probably isn’t getting enough attention.” Diana also describes Erika as someone who “just has ups and downs.” Despite this broad range of “normal” behavior for Erika, Diana indicated that she thought the rise in Erika’s problem score was accurate and reflected a real increase in problem behaviors due to the
Table 7

Pre/Post Comparison of Scores – Participant 6

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
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<tbody>
<tr>
<td>Total</td>
<td>67</td>
<td>70</td>
<td>↑ 3</td>
</tr>
<tr>
<td>Internalization</td>
<td>14</td>
<td>23</td>
<td>↑ 9</td>
</tr>
<tr>
<td>Externalization</td>
<td>30</td>
<td>26</td>
<td>↓ 4</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>3</td>
<td>2</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>2</td>
<td>6</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Somatization</td>
<td>2</td>
<td>6</td>
<td>↑ 4</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>8</td>
<td>9</td>
<td>↑ 1</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>4</td>
<td>3</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Attention</td>
<td>11</td>
<td>9</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Aggression</td>
<td>19</td>
<td>18</td>
<td>↓ 1</td>
</tr>
</tbody>
</table>

events mentioned above. Interestingly and somewhat surprisingly, Diana expressed that she thought the TNS program had been very helpful and positive. She reported that Erika was “doing much better” as she (Erika) “can talk it out and has more control over her moods.” Diana also feels that the TNS program has been helpful to her as a mother as she has learned parenting skills from “talking to the teachers.” “I see what they do and do it at home.”
Table 8

*Pre/Post Comparison of Scores – Participant 7*

<table>
<thead>
<tr>
<th>Problem Score</th>
<th>Pre Score</th>
<th>Post Score</th>
<th>Direction and Amount of Change in Problem Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>44</td>
<td>18</td>
<td>↓ 26</td>
</tr>
<tr>
<td>Internalization</td>
<td>15</td>
<td>8</td>
<td>↓ 7</td>
</tr>
<tr>
<td>Externalization</td>
<td>16</td>
<td>5</td>
<td>↓ 11</td>
</tr>
<tr>
<td>Emotional Reactivity</td>
<td>4</td>
<td>1</td>
<td>↓ 3</td>
</tr>
<tr>
<td>Anxious/Depressed</td>
<td>6</td>
<td>4</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Somatization</td>
<td>2</td>
<td>1</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>3</td>
<td>2</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>1</td>
<td>0</td>
<td>↓ 1</td>
</tr>
<tr>
<td>Attention</td>
<td>3</td>
<td>1</td>
<td>↓ 2</td>
</tr>
<tr>
<td>Aggression</td>
<td>13</td>
<td>4</td>
<td>↓ 9</td>
</tr>
</tbody>
</table>

Given these details about the major changes in Erika’s life, it is impossible to know how or what the TNS intervention did for her (if anything). Although it is possible that the TNS intervention protected Erika from greater distress and problem behaviors, it seems more likely that there was little to no effect from the TNS intervention (given that most other children showed little change) and that her increased problem scores reflected her response to changes in her home life.
The second notable exception to the overall trend of score stability was “Jamie,” a four and a half year old Hispanic boy who lived with his biological parents. According to his chart, when Jaime entered the program his presenting problems included “parent/child relational issues” and “toileting issues.” He was diagnosed with Adjustment Disorder with Anxious features while at TNS. Within this study, Jaime’s overall problem score decreased by 26 points indicating fewer problems or less intensity in problem behaviors.

As before, in an attempt to understand and/or identify possible factors in this seemingly large drop in problem scores (lessening of problem behaviors), variables such as rater stability, time in the program, attendance, and number of therapy sessions received were considered but were confusing. Jaime had different raters for the parent and therapist pre/post ratings. His father answered the pre-parent form and his mother answered the post. Also, Jamie’s pre-therapist form was completed by an intern therapist who left before the post info was due so the head clinician completed the post form. These five raters (mother, father, teacher, therapist 1 and therapist 2) had mixed levels of correlation split between “average” and “below average.” It is possible that this rater instability may account for some of the movement in Jaime’s score. Jaime was in the program for four months when the average length of treatment was 5 months. He attended the program 63 times in a four month period when the average was 82, and he received 10 individual therapy sessions when the average was 14. With regard to these factors, it seems that Jamie received less TNS intervention when compared to other participants in the study. This information taken together seems to suggest that perhaps the TNS intervention was not the main cause of improvement or that Jamie needed less
intervention in order to improve (as his case was seemingly less complicated). He received no outside services from other providers.

Jamie’s parents were contacted in the hopes of collecting more information about Jamie’s response to the TNS intervention, but they did not respond. In reviewing the therapist’s notes from parent meetings near the time of Jamie’s graduation, it seems clear that they were very pleased with how he had become successfully toilet trained. It is likely then that they felt the program helped Jamie. In a conversation with the program director about Jamie, she indicated that in fact Jamie was “a high functioning kid with no problems really.” His family was “intact” and “normal” and “his only real issue was toilet training.” “He probably did not belong in the program.” She saw his case as “easy” and “straightforward” and attributed the decrease in problem scores to the overall simplicity of his issues. Considering both the level of intervention (less than others) and the program director’s comments it is likely that Jamie’s response to intervention (if that in fact was what it was) was atypical of a TNS student.

The overall data is unfortunately inconclusive. There is a suggestion that there is little to no effect for most students but that parents may leave the program feeling they and their child has benefited from their time at TNS. It seems important to note that even if all TNS students had participated in the study, the sample size would still have been too small to run meaningful tests using quantitative methods. This raises the questions as to how a small program like TNS that is interested in examining their outcome can look objectively at this issue.
CHAPTER V
DISCUSSION

The purpose of this study was to evaluate the effectiveness of the intervention provided by the Therapeutic Nursery School (TNS) program. This research examined the outcomes for seven children in the program who were between 2 1/2 and 5 years old. The study was intended to explore the causal relationship, if any, between the interventions provided by TNS and the behavioral, emotional, and social problems of students. The major question that was addressed in the research was, Did the TNS program reduce problem behaviors in its students and thus increase positive behaviors such as successful social skills, appropriate emotional expression, and pro-school behaviors? The secondary question was, Were there specific aspects of the program or population that seemed to indicate ways to improve TNS’s overall outcome effectiveness?

Key Findings

This study did not show any significant change in children’s problem behaviors over the period studied. Both quantitative and qualitative measures reveal that measurable, significant change was limited for most participants. Beyond the original research questions, the “outlier” cases in this study revealed potentially important and useful information about TNS. In particular parents or caregivers may feel positively about the TNS program even if their children’s problem behaviors remain the same or to increase. This suggests that the total outcome(s) of the TNS intervention may not have
been fully captured by the objective outcome measures and it indicates other factors not yet considered.

*Study In Situ*

The findings of this study interestingly parallel the literature review (taken as whole) in that the conclusion of the literature review did not provide a clear sense of whether therapeutic preschool programs were generally effective. These inconsistent findings were due at least in part to the varied configurations of program design, target population, clinical methods, and service-provider characteristics.

Several of the previously mentioned studies were unable to clearly identify the impact of interventions, as did this study, even when the studies were larger and included control groups. Specifically, Woollacott et al. (1978) found no evidence that their parent centered, early intervention program for preschoolers created significant change in problem behaviors. Additionally, Reams and Fredrich (1994) found play therapy and milieu therapy within a therapeutic nursery to be ineffective at creating significant change for students. These two studies and the current research agree with Tse’s (2006) meta-analysis that the value of multi-modal, day treatment for preschoolers is not well substantiated.

However, there was another group of studies in the literature review found some preschool mental health interventions to be effective for some participants. Rickel et al. (1979) found significant improvement for preschoolers who attended a therapeutic preschool four times a week for eight months. Their study was rigorous and included a control group. Oates et al. (1995) found a 5 day per week program for abused preschoolers to be effective in creating significant change for most students, and
Anderson, Long, Leathers, Denny, and Hilliard (1981) found Duke’s Therapeutic
Preschool to be generally effective for its students. Even Ware, Novotny, and Coyne
(2001) in a study with limitations similar to the current research (no control group and
small sample size) were able to exhibit participant improvement and thus an effective
intervention. Considering the major findings of the current research and the findings of
previous studies, meaningful unifying factors are unclear. The most useful and interesting
information available from this study seemed to arise out of some unexpected or
“accidental” findings.

Considering more than just the overall findings regarding program outcomes, this
study supported more nuanced findings in other previous studies - in some cases even
when the overall findings were contradictory. For example, Anderson, Long, Leathers,
Denny, and Hilliard (1981) found that children with shy/withdrawn problems types
seemed to have more significant responses to their program’s intervention. This seems to
also have been the case in the current research. In this study, the only participant who
seemed to improve significantly, “Jamie,” was also the only participant with a
shy/withdrawn problem type. He was one of only two students out of seventeen enrolled
at TNS during the time of the study who had this problem type. Shy/withdrawn is not the
predominant problem type at TNS. Children with the shy/withdrawn problem type
usually do not end up at therapeutic nursery schools unless there are other co-occurring
issues (Ware, Novotny, & Coyne, 2001). This is due to the fact that these children are
often “internalizers” who do not “act out.” Their seemingly meek nature is often
interpreted by teachers and parents/guardians as “easy” and they often go unnoticed. The
overlooking of such children is a serious problem (as some argue it is these children who
are at the most danger in the long run; Albayrak-Kaymak, 1999) and deserves attention. There is a need for future research that will determine the prevalence of this population (troubled shy/withdrawn children) in “traditional” schools and in therapeutic schools and examine how best to identify and serve them; however, this is beyond the scope of this research. What is important to note here is the possible incongruence of a program intervention that serves only a small minority (2 of 17 or 12%) of its population. This data taken with the findings of previous studies serves to highlight the importance of measuring outcome in order to know what is truly offered by a program and who is most likely to benefit. Such programmatic self-awareness and intention allows for either specialization or adjustments based on program intentions and possibly a greater likelihood for more efficiency and success.

Similarly, Oates et al. (1995) reported a “common sense finding” that preschool aged children in stable homes responded more significantly to early intervention than children who were in “unstable” homes where there was parental fighting, drug use, foster placements, criminal activity, domestic abuse, etc. The one participant in my study who seemed to improve significantly, “Jaime,” was the only child within the study (1 of 7) and in the program at the time of the study (1 of 17) who was from an “intact,” “normal” family.

Most students at TNS do not come from stable households. This may imply that stability in the home life of preschool clients is an essential component for the success of a mental health intervention. This deserves some discussion given that seemingly very little is done at TNS in order to work towards ensuring a safe and stable home life for its enrolled students. Actual parent work, family sessions, home visits, and committed
participation from families are rare. Occasionally, it (has even happened that the) parents or guardians did not know the type of services the program offered and/or the rationale for their child’s inclusion in the program. Although rare, these instances illustrate that TNS as a program did not prioritize parental involvement or inclusion. In contrast, the only other therapeutic preschool in the area, “Learning Space,” has a dedicated “Parent Place” in the school that houses resources, information, and is the location of monthly parent support meetings. They have a parent advisory board that is involved in school decisions, and they host two big “blow out” parties a year. Home visits are an important part of the intervention and therapists are available to meet with parents into the evening hours. Learning Space also provides transportation to and from school, groceries picked up from the food bank on a regular basis and offered to families, and assistance in varied family issues such as helping to pay for utility bills on occasion or securing a shelter bed for a family that has lost their housing.

The seeming lack of commitment to attend to and work with families is likely related to administrative and financial policies. For at least the past five years, TNS has been in a period of great flux in which major sources of funding were lost, partnering relationships were discontinued, and directors and clinical staff positions turned over frequently. Amid this, it seems that the program resorted to crisis-mode functioning in which there was a staff shortage, great discord, lack of leadership, and disorganization. Such turmoil in the program is likely related to the perceived lack of investment in parents/guardians and families. Additionally, the practice of having the clinical team composed mostly of interns (essentially a fiscal issue) may limit the level of clinical engagement TNS had with its parents. It is possible that these interns were more timid in
addressing and confronting potentially touchy issues with guarded, hostile, or disinterested parents. These highlighted possibilities are merely attempts to explore and understand reasons for TNS’ particular approach to parents at the time of this study. Understanding and improving upon this aspect of parental engagement seems important given the influence of parents and home life have on children’s response to mental health intervention.

Study Strengths and Weaknesses

The strengths of this study are limited and the limitations of this study are numerous and arose from many factors that will be discussed. The research question was adequate in that it served to appropriately guide the study towards relevant data. However, what was being asked was ultimately quite complex. The primary research question, “Did the TNS program reduce problem behaviors in its students and thus increase positive behaviors such as successful social skills, appropriate emotional expression, and pro-school behaviors?” This study asked only part of the question. What may have been lacking was questions that sought information about other potential outcomes such as subjective accounts, other varied objective measures (i.e., social skills, mood, etc.), long term impacts, family functioning, and parental behaviors.

Similarly, the instrument used and type of data collected was a good but limited part of assessing intervention outcome. Using a proven, long standing, and well respected instrument was a strength in this study because it limited questions of instrument validity and reliability. It also provided the opportunity to compare data to normative scores from large, experimental studies conducted by the instrument’s authors. Quantitative, objective measures are an important component of measuring intervention outcome; however, such
measures do not capture other valuable information such as parent perception, effects less easily measurable, or those not measurable at all.

A further issue is that pre and post design studies, such as this one, do not inherently reveal whether the intervention itself was the reason for change. In order to determine causality the research would have needed to include a control group. Thus, this study design was not capable of determining causation (even if the sample had been larger). Although this study is interested in intervention and its impact on clients, causation was not the primary concern. This study was conceptualized as an initial reading of intervention outcomes. This initial reading revealed information and pointed to areas for consideration and methods that might be used to better understand the outcome(s) of the TNS intervention.

This study had many possible threats to validity. Factors such as design, possible reporter limitation, maturation, external events, and researcher bias combined to potentially limit internal validity and are detailed below. The absence of a control group and the small sample size were the most significant limitations in this study as these factors impacted what could be done with the data that was collected. The timing of the study itself – its length and the related time between pre/post measures – could also have impacted outcomes. Considering this, four or six months might not have been enough time to allow for significant change in some or all of the participants. It is important to note however that the average stay at TNS is 6-8 months. Thus, the time between measurements does not seem unreasonably short. Additionally, one could argue that 4-6 months is a fairly large period in a four year old’s life. Lastly, the fact that change is not linear or continuous could mean that one might reasonably expect to observe
discontinuities in a relatively short time period. Selection bias may have influenced this study’s findings. All TNS parents were solicited for participation but only 7 out of 17 choose to participate. The internal validity of this study could also have been impacted by reporter limitations. Parents, teachers, and therapists completed forms. Each was encouraged to rate based on their own perception of the child “compared to a normal child of his/her age.” Clearly this is subjective and allows for varying levels of alertness, knowledge, and perspective which may have impacted overall outcomes. In addition, for teachers and therapists, “examiner bias” was a possibility as they may have been invested in showing progress in their students/clients to indicate improvement that would then reflect positively on them. Maturation is a major component of change for all children but especially for the preschool age group. Given this, controlling for maturation would be important and a failure to do so may limit internal validity (Nabors, Weist, & Reynolds, 2000). Accounting for maturation was not possible in this study as no developmental measures were included.

Uncontrollable historical events and contextual effects may have influenced outcomes. Pre and post measurements may have coincided with a particularly “bad” or “good” moment for any one of the participants and may not have been an accurate measure. This possibility was lessened to some degree by having multiple raters who had varied interactions with each participant but this only really controlled for personal bias or an idiosyncratic perspective on the child. If in fact there was a significant event occurring in a child’s life, as was the case with “Erika,” the measurement may have been skewed. It is important to note here that many of the TNS families and children are stressed by issues that cannot be remedied in a mental health setting (i.e., poverty,
racism, inadequate housing, and dangerous neighborhoods). So these factors are likely to influence any outcome study with a therapeutic nursery school program.

Lastly, there was possibly some researcher bias in this study. I was introduced to the TNS program as an intern for my first Smith placement. I functioned as a clinical intern and experienced the program first hand for eight months. I left suspecting that the program was not doing what it aimed to do. I later designed this outcome study for TNS in the hopes of objectively addressing this suspicion. I was mindful of my own bias while conducting research, but it is possible that my past experience at TNS affected this work.

Clearly, there are many complexities and difficulties mentioned that made this outcome evaluation a complex process. Some of these complexities and difficulties could be controlled through better design but many cannot. In response to this complexity, there is a tendency to avoid outcome evaluations altogether or assume that the conclusions were compromised. However, if therapeutic schools are to fulfill their promise, programs must be able to demonstrate that they can achieve desired outcomes (Nabors et al., 2000). Thus, although the process is messy, it is needed and worthwhile.

**Study Implications**

As was evidenced in the literature review and was somewhat corroborated by this current research, clear understandings about what interventions work best for whom are limited. Researchers need to know as much as possible about the range of youth, family, and community characteristics for which benefit is most likely. In most research, little more than demographic information is relayed. Understanding more about person and condition factors that moderate intervention effects is essential to researcher’s understanding of how and with whom interventions work.
This general lack of deep information about participants and/or clients is also related to an overall lack in theory and research to attend to and/or integrate the powerful social forces - racism, sexism, poverty, and classism - that impact many of the families and children that end up utilizing therapeutic preschools. These oppressive forces often manifest in “pathological” ways in those subjected to them. Any meaningful work with such populations must recognize and work to address these more systemic issues that reach down in important ways to effect personal lives (Freire, 1970). The research points to a need for well defined theories that articulate holistic yet clinical approaches to guide this work.

Social action to address oppressive elements in clients’ lives is certainly the role of social workers. One form of social action is to ensure that clients are able to access services they need. In the therapeutic preschool setting this might mean (among other things of course) making sure appropriate services are offered that match the population served and that the services are good quality and delivered effectively. It is the perspective of this researcher that working towards these things is a form of advocating for the client. For who will personally suffer if services or interventions are ineffective? What appears likely in this case is that the child and the child’s family may move on with a variety of unmet needs. It may appear as if these children and families received services and did not improve. This opens up the possibility of them, the client(s), being described as “unresponsive” or “resistant.” Outcome studies are one way clinicians and programs can work towards ensuring that their clients are getting what they need.

Some argue that the use of outcome studies represents a major advancement for the nonprofit sector, and that the evaluation of social and mental health interventions is at
the frontier of applied social science research (Fisher, 2001). Measuring outcomes is an integral part of delivering services, but it is not easy. The struggles to find meaningful and obtainable measures of success is challenging in programs dealing with complex family problems. This study highlights the complexity of looking for outcomes and may help others who endeavor such studies to anticipate possible difficulties and therefore design better outcome studies in their own work.

Outcome studies can provide valuable information for program planning. This study highlighted some broad aspects of program planning for therapeutic preschools. They are:

- Programs that attempt mental health interventions with young children need to be theoretically focused. A school must have an educational philosophy and then must be assessed as to how well it is living up to that philosophy.
- Programs that attempt mental health interventions with young children need to be organized and funded appropriately. Effective programs will not emerge spontaneously with minimal resources and minimal planning.
- Programs that attempt mental health interventions with young children need to have staff that collaborate and support one another. Staff members often have different training and different perspectives and therefore may not be oriented towards collaboration.
- Programs that attempt mental health interventions with young children need to be pragmatic, holistic, and cohesive and therefore include families and family work.
- Programs that attempt mental health interventions with young children need to know what populations they are serving. They need to know the developmental
norms of the age group, as well as, the developmental patterns and concerns of the populations served and design curriculum accordingly (Koplow, 1996).

- Programs that attempt mental health interventions with young children need to embed outcome evaluations in operations. Programs on their own should initiate outcome measures in order to ensure quality for their own sake as well as the student and families who attend, its funders, and broader society. (Fisher, 2001).

Further researchers may want to work towards defining what in fact are all the components that need to be assessed in order to fully ascertain a therapeutic nursery school’s outcomes. Conducting a similarly designed study with either a control group or one that extended over multiple years in order to increase sample size would allow for fully utilization of the quantitative data. A broader study also might include more varied measures of intervention outcome. Lastly, a further study might also want to control for maturation which could be done by including a developmental measure at both pre and post periods.

**Summary**

As is reflected in this study, TNS currently functions in a manner that has a fair amount of instability in that it is understaffed, under funded, theoretically ungrounded, and experiences a great deal of staff turnover. This instability creates potentially avoidable problems for the program. However, this instability also creates the possibility for change. Even in the limited time that this study was conducted important changes were made within the program. Most significantly, at the close of the study, there was a large shift in staffing as both the head clinician and program director left the program on short notice and within months of each other. This forced EBAC to seriously reevaluate
the program and forced the issue of “either doing it right or shutting the doors,” as one administrator put it. Internal advocacy by a concerned administrator lead to an 18-page proposal for essentially reconstructing TNS to be “functional.” This proposal included allocation of more funds, more staff (i.e., a clinically minded principal, a head clinician, a director, a head teacher, and more teachers per classroom), clearer organizational structure, and more support for staff overall. This proposal was approved and is being worked on currently. In this researcher’s opinion, this is an important step in the right direction as an agency in crisis is likely not able to adequately serve clients in crisis. Making a program “functional” is fundamental, but not the same thing as making it effective. Perhaps after TNS’s functioning is restored, the program will spend some time assessing effectiveness and outcomes to ensure clients’ needs are being met.

As is evidenced by this study, assessing the true value, quality, impact, and outcome of mental health interventions is difficult. The task in and of itself is difficult. This is even more so when an agency is not functioning properly. Despite these difficulties and limitations, such inquiry is important and worthwhile. Merely providing a facility and services for children and families does not by itself constitute a benefit for such children or families. Clinicians and programs must question their practice and outcomes in order to remain consistent with the moral and ethical mandates inherent in this profession.


Appendix A

Consent Form – Parents and Caregivers

Dear Participant,

My name is Elise Geltman. I am currently studying to become a social worker. Earlier in my studies, I was an intern at the Therapeutic Nursery School (TNS). I am now returning to TNS to conduct a research study that will attempt to determine what TNS is doing well, as well as, identify areas in which TNS might need to improve its services. This study is being conducted as partial fulfillment of the requirements for my Master of Social Work degree at Smith College School for Social Work. Once the study is complete, I will publish and present my findings in a thesis. I will make also make my findings available to TNS so that it might be used to improve the program.

You are being asked to participate because you are the caregiver of a child enrolled at TNS. As a researcher, I am interested in your child’s behavior, social skills, and emotional development while at TNS. Although I will be collecting information about your child, the information you provide will only be used to evaluate the TNS program. You and the child you are reporting on are not being evaluated. Your participation, non-participation, or withdrawal from this study will not affect the services you and your child receive or the relationship you and your child have with TNS. As a participant in this study, you will asked to complete a form (“scale”) two times; once at the time you enter the study and once at the time you exit the study. The form will take roughly 30 minutes to complete.

The potential risks of participating in this study are that you might feel strong or uncomfortable emotions while completing the form or talking about your child’s
experience. If this does happen to you at any point during or after participating in this study, I have attached a list of local, relevant counseling resources that might be of help.

Your participation is voluntary. You will receive no financial benefit for your participation in this study. However, you may benefit from knowing that you have provided information that may improve the services provided to children at TNS and for professional social workers. Please know that your confidentiality and protection are a priority. During the study, only I will be able to identify who you are and the information you provided. While working on my study, my advisor from Smith will have access to my data but will not have access to personal information. Similarly, during the writing and presentation of findings, your identity and the identity of your client will never be associated with the information you provide. All data collected will be kept securely for three years, as required by Federal regulations.

This study is completely voluntary. You are free to refuse to answer any question. You may also withdraw from this study anytime until March 1, 2008. If you withdraw, all your data will be immediately destroyed. You can reach me at any time (to withdraw, ask questions, or make comments) by calling [PHONE NUMBER] or e-mailing me at [EMAIL ADDRESS].

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR AND/OR YOUR CHILD’S (OR WARD’S) PARTICIPATION, AND YOUR AND/OR YOUR CHILD’S (OR WARDS’S) RIGHTS, AND THAT YOU AGREE TO PARTICIPATE AND TO ALLOW YOUR CHILD (OR WARD) TO PARTICIPATE IN THIS STUDY.

__________________________________________
SIGNATURE OF PARTICIPANT

__________________________________________
SIGNATURE OF RESEARCHER

____________________________
DATE

____________________________
DATE
Appendix B

Consent Form – Teachers and Therapists

Dear Participant,

My name is Elise Geltman. I am currently studying to become a social worker. Earlier in my studies, I was an intern at the Therapeutic Nursery School (TNS). I am now returning to TNS to conduct a research study that will attempt to determine what TNS is doing well, as well as, identify areas in which TNS might need to improve its services. This study is being conducted as partial fulfillment of the requirements for my Master of Social Work degree at Smith College School for Social Work. Once the study is complete, I will publish and present my findings in a thesis. I will also make my findings available to TNS so that it might be used to improve the program.

You are being asked to participate in this study because you are the therapist or teacher of a child enrolled at TNS. As a participant in this study, you will be asked to complete a form/scale two times - once at the time you enter the study and once at the time you exit the study. The study itself will run from April 2007 to February 2008.

As a researcher, I am interested in your client’s behavior, social skills, and emotional development while at TNS. Please note that although I will be collecting information about TNS students, the information will only be used to evaluate the TNS program. You or the child you are reporting on are not being evaluated individually. Your participation, non-participation, or withdrawal in this study will in no way affect your working relationship and status at TNS. The form will take roughly 30 minutes to complete.
Your participation is voluntary. You will receive no financial benefit for your participation in this study. However, you may benefit from knowing that you have provided information that may improve the services provided to children at TNS and for professional social workers. Please know that your confidentiality and protection are a priority. During the study, only I will be able to identify who you are and the information you provided. While working on my study, my advisor from Smith will have access to my data but will not have access to personal information, as I will code all information collected. Similarly, during the writing and presentation of findings, your identity and the identity of your client will never be associated with the information you provide. All data collected will be kept securely for three years, as required by Federal regulations.

This study is completely voluntary. You are free to refuse to answer any question. You may also withdraw from this study anytime until March 1, 2008. If you withdraw, all your data will be immediately destroyed. You can reach me at any time (to withdraw, ask questions, or make comments) by calling [PHONE NUMBER] or e-mailing me at [EMAIL ADDRESS].

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, YOUR RIGHTS, AND THAT YOU AGREE TO PARTICIPATE IN THIS STUDY.

__________________________________________  __________________________________________
SIGNATURE OF PARTICIPANT                  SIGNATURE OF RESEARCHER

__________________________________________  __________________________________________
DATE                                           DATE
April 4, 2007

Elise Geltman

Dear Elise,

Your final revisions have been reviewed and all is now in order. We are happy to approve this study.

Please note the following requirements:

**Consent Forms**: All subjects should be given a copy of the consent form.

**Maintaining Data**: You must retain signed consent documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

**Amendments**: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal**: You are required to apply for renewal of approval every year for as long as the study is active.

**Completion**: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your very interesting study.

Sincerely,

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Alan Schroffel, Research Advisor